

Application Ref: NP/12/0296

Application Type	Full
Grid Ref:	SS08519885
Applicant	Mr M Mathias
Agent	Mr D Morris, Newlandowner Ltd
Proposal	Erection of 5kw15m wind turbine
Site Location	Thornhill, Manorbier, Tenby, Pembrokeshire, SA70 7SJ
Case Officer	Richard James

Summary

This is a full application for a "Small Scale" 5kw Evance R9000 wind turbine, to provide a renewable energy source for Thornhill, a detached dwelling in the Manorbier Community Council area. This application has been brought to Committee as the view of Penally Community Council conflicts with your officer's view. Although the comments of a neighbouring Community Council would not normally influence the delegation procedure, as wind turbines have the potential to be viewed across a wide landscape area and in respect of the proximity of the proposal to the boundary of Penally Community Council, it is considered, at the Head of Development Management's discretion, that the application should be determined by the Committee. The proposed wind turbine is not considered to cause any significant detrimental impact upon the special landscape character of the National Park, both in isolation and when taking into account the nearby proposals of Shipping Hill Farm and Norchard Farm (NP/12/0299 and NP/12/0346 respectfully and also on this agenda). The proposal raises no other planning concerns, subject to the placing of appropriate conditions to any approval given. As such the application is considered to comply with the relevant policies of the LDP and is therefore recommended for approval.

Consultee Response

Countryside Council for Wales: No objection

Dyfed Archaeological Trust: Reply

Ecologist - Pembrokeshire County Council: Reply - The survey concluded there would be little impact on species or habitats as a result of the proposed development.

Environment Agency Wales: Conditional Consent

MOD: No objection

Manorbier Community Council: Approve

NATS: No objection - No safeguarding objections

PCC - Transportation & Environment: No objection

Penally Community Council: Objecting - Penally Council objections are as follows:

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1. The construction will be visible to the public from both the Ridgeway and the Coastal Path having a detrimental visual impact on the area.
2. There is a possibility of noise pollution.

Public Protection Division - PCC: Conditional Consent

Public Response

1 letter of objection has been received from a neighbouring property raising the following points:

- The National Park should be protected from eye-sores and disturbances, the National Park is a beautiful, natural, protected area.
- Local residents already put up with lots of disturbances such as low flying aircraft and explosions from the nearby army base.
- Why is it ok to allow a 15m high turbine when height restrictions are placed on houses?
- The turbine is likely to interfere with low flying aircraft.
- Wind turbines make a considerable amount of noise; the proposal is in close proximity to houses.
- Is the turbine solely for the applicants benefit? If so it should be nearer to their property.

Policies considered

Please note that these policies can be viewed on the Policies page Pembrokehire Coast National Park website - <http://www.pembrokeshirecoast.org.uk/default.asp?PID=549>

LDP Policy 01 - National Park Purposes and Duty

LDP Policy 07 - Countryside

LDP Policy 08 - Special Qualities

LDP Policy 11 - Protection of Biodiversity

LDP Policy 13 - Historic Landscapes Parks and Gardens

LDP Policy 15 - Conservation of the Pembrokeshire Coast National Park

LDP Policy 29 - Sustainable Design

LDP Policy 30 - Amenity

LDP Policy 33 - Renewable Energy

LDP Policy 53 - Impacts on traffic

PPW4 Chapter 04 - Planning for Sustainability

PPW4 Chapter 05 - Conserving and Improving Natural Heritage and the Coast

PPW4 Chapter 06 - Conserving the Historic Environment

PPW4 Chapter 12 - Infrastructure and Services

PPW4 Chapter 13 - Minimising and Managing Environmental Risks and Pollution

SPG05 - Sustainable Design

SPG06 - Landscape Character Assessment Study, June 2009

SPG13 - Archaeology

SPG14 - Renewable Energy

Officer's Appraisal

Background

Thornhill is a detached dwelling located in open countryside approximately 1/2km West of Lydstep in South Pembrokeshire. A number of surrounding agricultural fields also exist within the applicant's ownership. The siting of the proposed turbine is located within the field immediately to the East of the dwelling, separated by Norchard Lane. The field slopes down to the North, into the Ridgeway valley which runs from East to West. The site is located within Landscape Character Area (LCA) 4 – Manorbier/Freshwater East, as defined in the Authority's Landscape Character Assessment SPG. It is also within a designated Historic Landscape. The landscape here comprises rolling landscape along the valley, with high level, well established hedgerow along the highways and field boundaries. Pockets of trees and small woodlands also exist throughout the landscape context. Sporadic agricultural holdings and dwellings are visible from the site location. The historic strip-field system in this area represents surviving elements of past agricultural management. The nearest neighbouring properties are located on the other side of the boundary hedgerow to the South and South East (approximately 120m to the nearest curtilage). Lydstep Nurseries is located in the next parcel of land to the South East.

History

There is no relevant planning history on the site.

Constraints

Historic Landscape – impact to be assessed below.

Minerals Safeguarding Area – no impact

Manorbier Air Defence Range – the MOD and NATS have been consulted as part of the determination process.

Current Proposal

This is a full application for a 5kw Evance R9000 wind turbine, measuring 15m to the hub and 17.75m to the blade tip, with a blade diameter of 5.5m. The proposed turbine is sited in an agricultural field to the East of Thornhill Cottage, the cable will run across the field, under the highway and connect back to the dwelling.

Key Issues

The application raises the following planning matters:-

- The planning policy context and the principle of development;
- The visual impact upon the existing landscape character of the area and integrity of the Historic Landscape;
- The impact upon amenity and public safety;
- The impact upon existing levels of biodiversity and the physical environment;
- The impact upon the archaeological interest of the site;
- The impact upon the integrity of surrounding trees and hedgerow;
- The impact upon highway safety;
- The impact upon air traffic.

The planning policy context and the principle of development

National guidance in relation to renewable energy is set out in PPW4 and TAN 8 and advises that renewable energy projects should generally be supported so long as the designated areas such as National Parks are not compromised. National guidance, together with the main policies of the LDP (1, 8, 15 and 29) seeks to balance this support with the need to conserve and enhance the special landscape character and natural beauty of the National Park.

LDP Policy 33 states that, amongst other things, small scale proposals will be considered favourably subject to there being no over-riding environmental and amenity considerations.

Having regard to the thresholds set out in the Authority's SPG on Renewable Energy, the size and output of the proposed turbine is considered as a "Small Scale" turbine. The Landscape Character Assessment SPG identifies this area (LCA 4 – Manorbier/Freshwater East) as having a "Moderate" sensitivity to small scale turbines. It accepts that the principle of erecting small scale wind turbines in this area is acceptable, subject to the careful consideration of any application put forward with regard to the above key issues.

The visual impact upon the existing landscape character of the area and integrity of the Historic Landscape

This is the first of three neighbouring applications for the erection of the Evance R9000 turbine to be presented to the September Committee. The other two applications are for Norchard Farm and Shipping Hill Farm, to the North. Due to the close proximity of the three applications, the Landscape Visual Impact Assessment (LVIA) for all three applications was conducted on the same day. This enabled the assessment of potential cumulative impact to be carried out more effectively. The LVIA comprised a desk based study to map the Zone of Theoretical Visibility (ZTV), the erection of a cherry picker on

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the site location and your officer visiting selected viewpoints within the surrounding landscape area (informed by the ZTV) to assess visual impact against the criteria of LDP Policy and Renewable Energy SPG.

With specific regard to this application, the LVIA concludes that the proposed turbine will be largely screened from public vantage points, rights of way and highways as a result of the topography and mature trees and hedgerow which dominate this landscape area. Where the turbine is visible, for example from gateways along the Ridgeway to the North, these will be glimpses rather than prolonged views. The turbine will appear either level with or below the skyline, within the context of other buildings such as the greenhouses/polytunnels of the neighbouring nurseries and trees/small woodlands, which currently provide vertical (albeit natural) features within the landscape. It is not considered to interfere with important coastal views both from the coastal path and from inland. The proposed turbine is relatively slight in terms of its bulk, with a small blade diameter and hub, thus a small moving element within the landscape. Therefore when viewing at a distance, this model of turbine is not considered to be visually overbearing.

With regard to cumulative impact, taking into account the other two application proposals, there are two viewpoints from gateways to the North East and South West, where all three proposed turbines would be visible. These views are again glimpses rather than prolonged views. The Thornhill site is a sufficient distance away from these viewpoints to effectively blend into the surrounding landscape and not be visually intrusive.

As a result of the above considerations, the proposed turbine is considered acceptable in terms of its visual impact upon the existing landscape character of the area and integrity of the Historic Landscape.

The impact upon amenity and public safety

The proposal is not considered to cause any other harm to the existing amenity levels of the area or neighbouring properties. The application is accompanied by details of expected noise output, the Environmental Health department of Pembrokeshire County Council has been consulted and raise no objections, recommending conditions to control noise to an acceptable level. The turbine will be located a sufficient distance away from neighbouring properties not to have any shadow flicker impact, also benefiting from the field hedgerow which provides further screening. The proposed turbine will exist on private land with no public access available, it is not therefore considered to cause any risk to public safety.

The impact upon existing levels of biodiversity and the physical environment

An ecological walkover survey has been submitted with the application, which concludes that the proposed turbine would not represent a significant risk to habitats or species in the area both when being constructed and when in

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operation, provided that certain mitigation measures to protect reptiles on the site location are carried out through measures for example, cutting the grass around the site before construction to encourage their dispersal. The Authority's Planning Ecologist and CCW have raised no objections, provided these mitigation measures are carried out. This can be controlled via a planning condition should approval be given. The proposal is therefore considered acceptable on these grounds.

The Environment Agency, whilst raising no objections, has highlighted that wind turbine developments cause the greatest threat to the environment during their construction. The site is located within a Source Protection Zone 1, designated to protect high quality potable groundwater supplies. A condition requiring the submission of a Method Statement detailing all necessary pollution prevention measures during the construction phase of the development has been recommended, to prevent contaminated water entering existing watercourses. This condition can be included in the decision, should approval be given.

The impact upon the archaeological interest of the site

The application site lies within the Registered Historic Landscape of Manorbier and within a short distance of several sites of historical and archaeological interest, such as post medieval lime kilns. Dyfed Archaeological Trust has been consulted and initially recommended that an Historic Environment Appraisal be carried out, in order for it to provide a definitive view. This was duly conducted, the Trust was reconsulted and based on the findings of this appraisal, has recommended that the proposal is unlikely to have a significantly negative impact upon the historic environment, and subsequently recommend no further action in this instance.

The impact upon the integrity of surrounding trees and hedgerow

The proposal will utilise an existing access route (gateway) into the field and is located 98m away from the nearest hedgerow. However, the proposed cable route runs through the Western hedgerow of the field and across the road to connect back to the dwelling. The preferred method of intersecting a hedgerow would be to use a moling device to tunnel underneath the hedge rather than remove a section of it. Further details of the proposed method can be obtained via a planning condition, should approval be given, to ensure no undue damage is caused and the visual amenity and screening ability of the hedgerow.

The impact upon highway safety

As mentioned above the proposal utilises the existing access points and also proposes no new tracks. The Highways Authority has been consulted and raises no objections or concerns, including during the construction phase of the development, where large/heavy vehicles will be attracted to the site. Once constructed, the proposal will attract little vehicular movements, only

those for annual maintenance. The proposal is considered acceptable on these grounds.

The impact upon air traffic

Wind turbines of a certain scale can cause disruption and physical obstruction to air traffic movements and radar installations. Both the Defence Infrastructure Organisation of the MOD and National Air Traffic Services have been consulted. No objections have been raised. The MOD have requested that they be notified of the date construction starts and ends, the height of construction equipment and the latitude and longitude of the turbine for their flying charts, this can be controlled via a planning condition should approval be given. The proposal is considered acceptable on air traffic grounds.

Conclusion

The proposed wind turbine is not considered to cause any significant detrimental impact upon the special landscape character of the National Park, both in isolation and when taking into account the nearby proposals of Shipping Hill Farm and Norchard Farm (NP/12/0299 and NP/12/0346 respectfully). The proposal raises no other planning concerns, subject to the placing of appropriate conditions to any approval given. As such the application is considered to comply with the relevant policies of the LDP and is therefore recommended for approval.

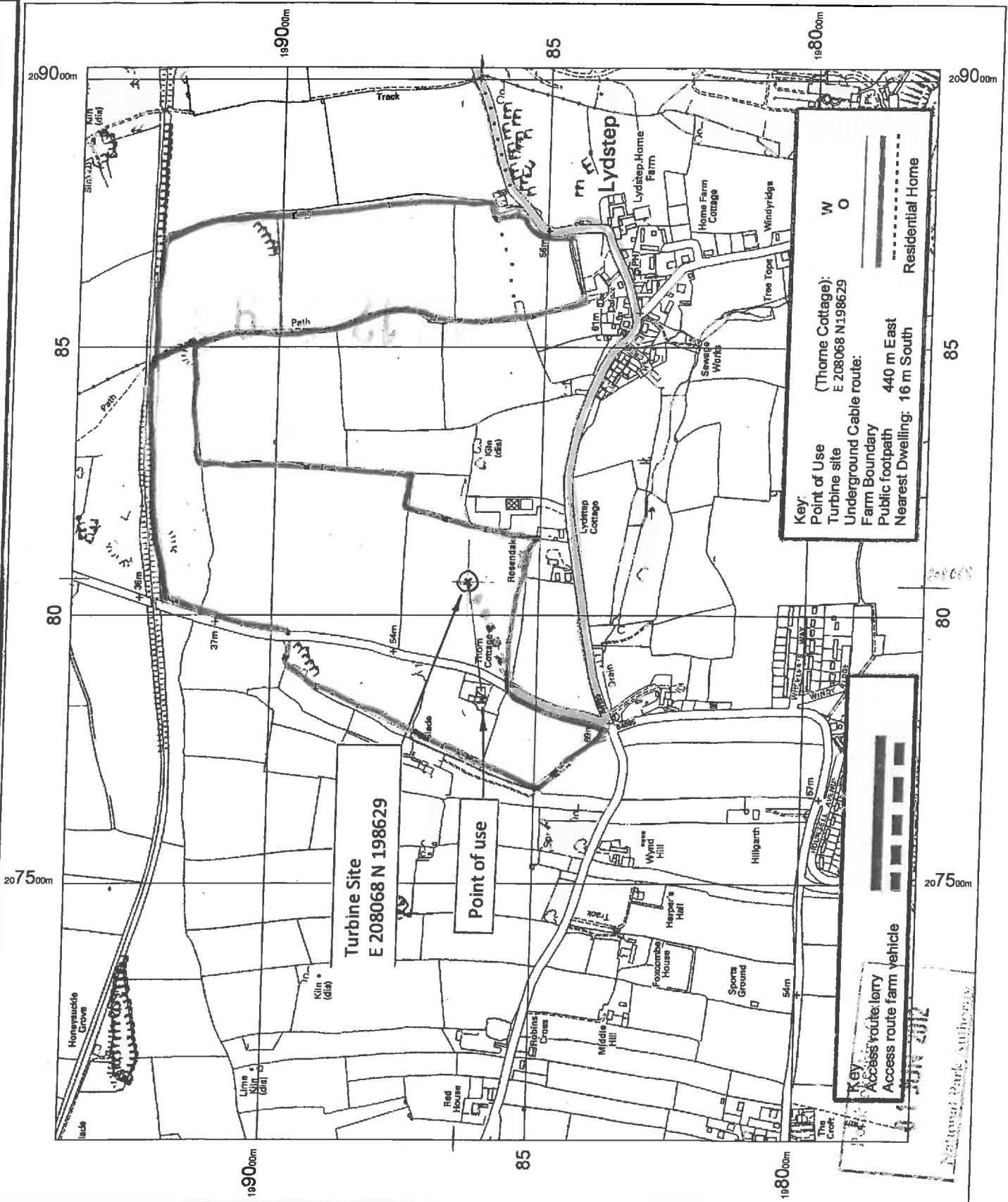
Recommendation

Approve.

Conditions

Standard conditions relating to time, accordance with plans and submitted information, the removal of the turbine from the site should the turbine fail to produce energy in a running 12 month period, the control of noise levels, the agreement of a method statement for pollution prevention measures and hedgerow breach and the submission of MOD required details.

One Small 5kW Wind Turbine



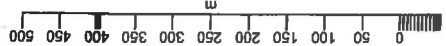
Key:

- (Thorne Cottage): W O
- Turbine site E 208068 N198629
- Underground Cable route: ————
- Farm Boundary ————
- Public footpath 440 m East
- Nearest Dwelling: 16 m South
- Residential Home ————

Key:

- Access route terry ————
- Access route farm vehicle ————

JUN 2012



OS 1:10,000 Mapping
 28 May 2012, ID:
 BLJT-00153122
 www.planningapplicationmaps.co.uk

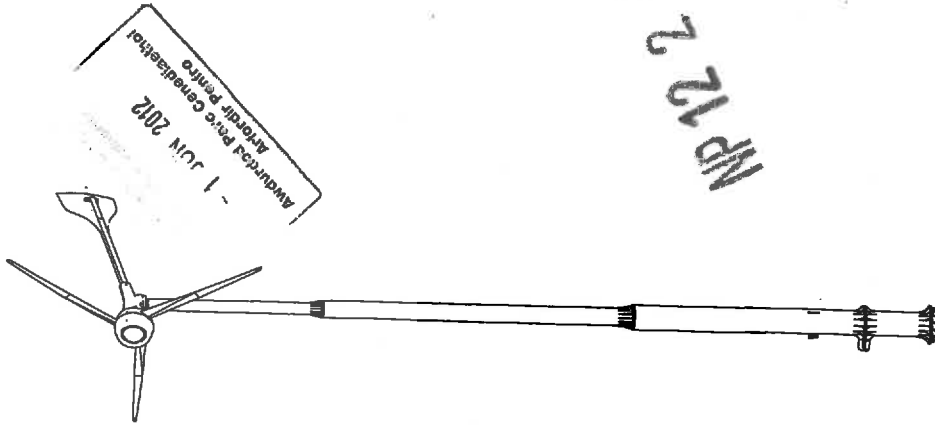
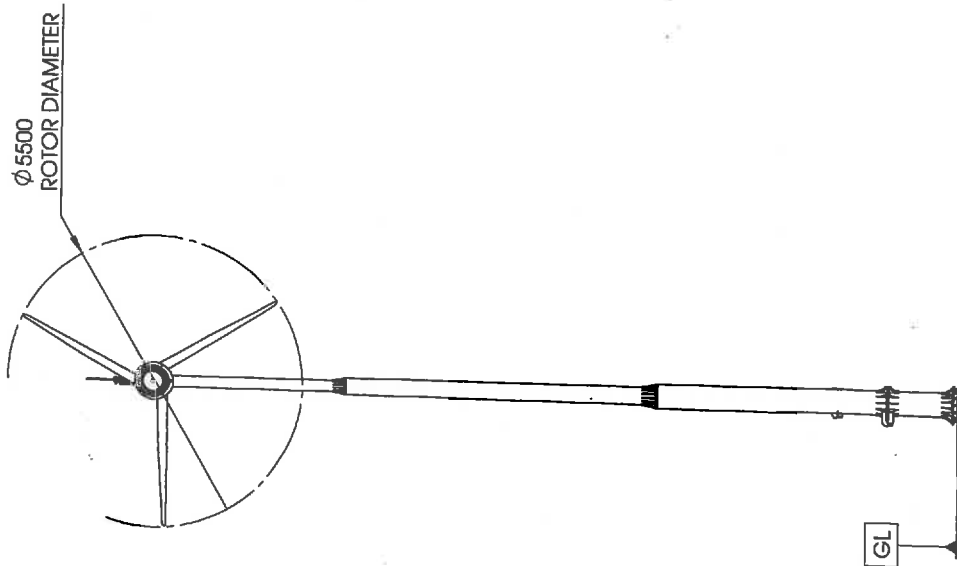
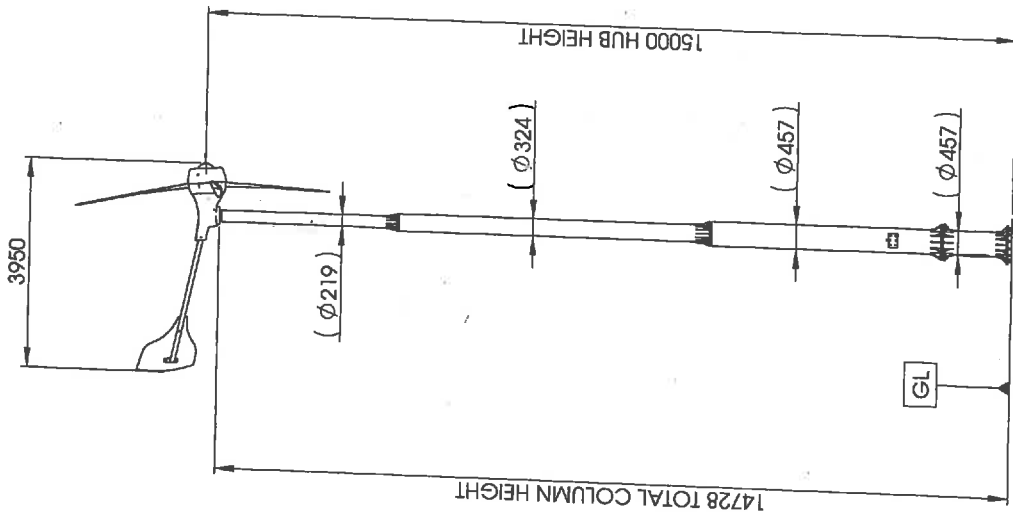
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OS Ordnance
 Survey

Mapping
 sourced from





1 JUN 2012
 Andrius Pirc, Generalist
 Andrius Pirc, Generalist

MP 12.2.9.9

NOTE. TOWER FINISH - GALVANISED STEEL

PROJECT: **15M HUTCHINSON RAM TOWER OUTLINE**

SCALE: 1:100

DATE: 02/03/2010

DESIGNATION: DEV 102

REV: 1/1

TOLERANCE, WHERE NO LIMIT SPECIFIED	NOV		DEC		JAN		FEB	
NOV SIZE	0	6	30	200	400	1000	NOV	NOV
MACHINED	±0.2	±0.2	±0.5	±0.8	±1.0	±1.5	±0.2	±0.2
FABRICATED	±1.0	±1.0	±1.5	±1.8	±2.0	±2.0	±1.0	±1.0

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED

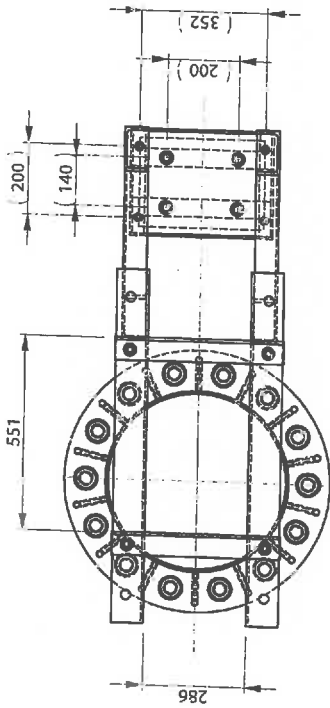
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MATERIAL SPEC: FINISH SPEC

AMENDMENTS	DATE	DRN
OVERALL TURBINE LENGTH ADDED	23/04/2010	GT
INITIAL RELEASE FOR PLANNING SUBMISSION	02/03/2010	GT

REVISIONS

INSTALLATION JIG LAYOUT



EVNH_5KW_C_701
TIE BAR
(2 OFF)

M16 x 45 SET SCREW x 4
COMPLETE WITH 8 x FLAT
WASHERS & 4 x FULL NUTS

EVNH_5KW_A_701
SUPPORT ARM
(2 OFF - HANDED)

GL

CONCRETE
LEVEL

6 x 310 LONG
JD BAR - 14 OFF

EVNH_5KW_A_501
ROOT ASSEMBLY

NOTE: SET TOP OF M20 STUDS
FLUSH WITH TOP OF BOX

M12 x 35 SET SCREW x 4
COMPLETE WITH 8 FLAT
WASHERS & 4x FULL NUTS

EVNH_5KW_A_301
RAM MOUNT BOX

EVNH_5KW_C_620
BOTTOM MOUNT FLAT BAR
(2 OFF)

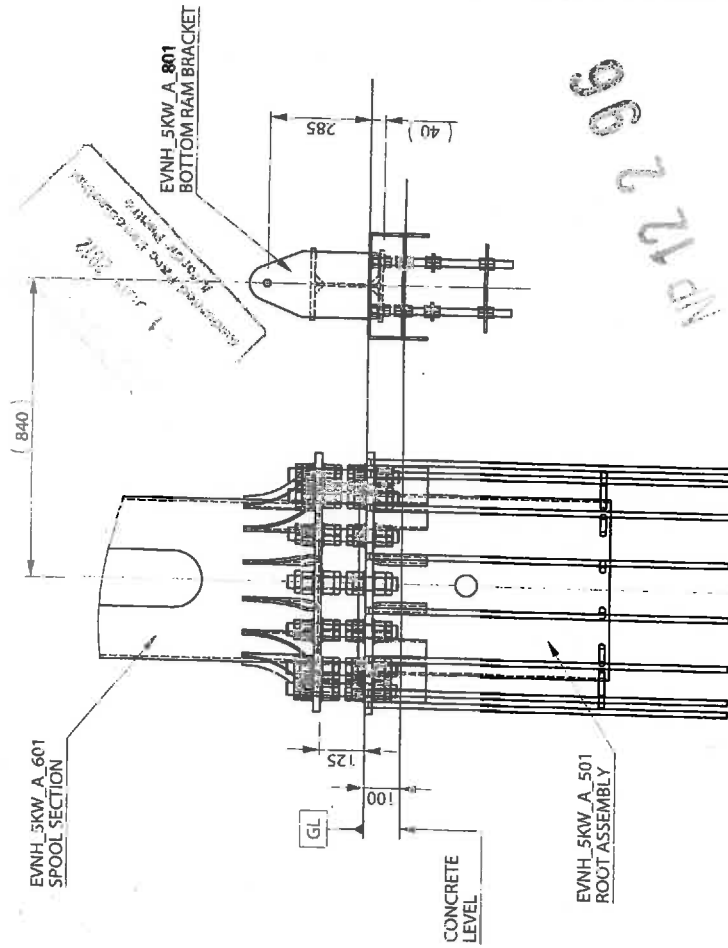
M20 x 400 LONG
STUD BAR - 4 OFF

EVNH_5KW_C_620
BOTTOM MOUNT TEMPLATE

INSTALLING POLE AND LOWER RAM BRACKET

ONCE THE ROOT IS INSTALLED AND CONCRETE HAS SET, THE INSTALLATION SUPPORTS ARE REMOVED LEAVING THE RAM MOUNT BOX SET INTO THE CONCRETE. THE SPOOL SECTION AND BOTTOM RAM BRACKET IS NOW INSTALLED AS SHOWN BELOW AND LEVELLED.

THE LOWER RAM BRACKET IS EVENTUALLY REMOVED AND REPLACED WITH THE BOXLID, ONCE THE STRUCTURE HAS BEEN FULLY INSTALLED AND ERECTED.



NO 12 2 99

SITE REF.:



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<p>CLIENT: EVANCE PROJECT: EVANCE SW - 10M / 12M / 15M HYDRAULIC STRUCTURE TITLE: ROOT INSTALLATION LAYOUT</p>		<p>SCALE: 1:15 DATE: 08/12/09</p>	
<p>DESIGNER: A.P.H. DRAWN: J.L.B. CHECKED: J.L.B. APPROVED: J.L.B.</p>		<p>NO. 9001 HUTCHINSON ENGINEERING LTD.</p>	
<p>EVNH_5KW_F_301</p>		<p>EVNH_5KW_F_301</p>	
<p>SEE DETAILS</p>		<p>SEE DETAILS</p>	
<p>FINISH:</p>		<p>FINISH:</p>	
<p>MASS (KG.):</p>		<p>MASS (KG.):</p>	
<p>NOTES:</p>		<p>NOTES:</p>	
<p>1. ALL DIMENSIONS ARE IN MILLIMETRES WITH LEVELS SHOWN IN METRES</p>		<p>1. ALL DIMENSIONS ARE IN MILLIMETRES WITH LEVELS SHOWN IN METRES</p>	
<p>2. ALL DIMENSIONS NOT TOLERANCED TO BE WITHIN 0.30mm</p>		<p>2. ALL DIMENSIONS NOT TOLERANCED TO BE WITHIN 0.30mm</p>	
<p>3. 1011341, GRADE S275 (UNLESS OTHERWISE SPECIFIED) & FABRICATED IN ACCORDANCE WITH BS 5950</p>		<p>3. 1011341, GRADE S275 (UNLESS OTHERWISE SPECIFIED) & FABRICATED IN ACCORDANCE WITH BS 5950</p>	
<p>4. ALL DIMENSIONS TO BE GRIND TO B.S. SPIN</p>		<p>4. ALL DIMENSIONS TO BE GRIND TO B.S. SPIN</p>	
<p>5. ALL STEELWORK TO BE PICKLED AND HOT DIP GALVANISED IN ACCORDANCE WITH BS EN1001461 UNLESS OTHERWISE SPECIFIED.</p>		<p>5. ALL STEELWORK TO BE PICKLED AND HOT DIP GALVANISED IN ACCORDANCE WITH BS EN1001461 UNLESS OTHERWISE SPECIFIED.</p>	
<p>FOR MANUFACTURE</p>		<p>FOR MANUFACTURE</p>	
<p>DATE: 08/12/09</p>		<p>DATE: 08/12/09</p>	

NOTE:
SEE DRAWING EVNH_5KW_F_401 FOR ROOT CONCRETE DETAILS

Approved by
 - 1 JUN 2012
 Heston's Coast
 Heston Park Authority

MP 17.7.7.96

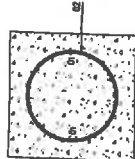
SITE REF: -

CONCRETE NOTE

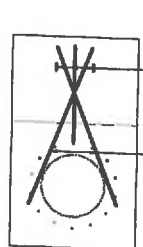
1. ALL STRUCTURAL CONCRETE TO BE GRADE C35 WITH A MAXIMUM FREE WATER/CEMENT RATIO OF 0.55 AND AN AIR CONTENT OF 300g/m³. NOMINAL AGGREGATE SIZE 20mm. ALL IN ACCORDANCE WITH BS 8110 PART 1: 1982.
2. CONCRETE MIX WITH "VERY SEVERE EXPOSURE" CONDITIONS, AS DEFINED IN BS 8111 PART 1: 1987 AND CLASS 2 SULPHATE RESISTANCE IN ACCORDANCE WITH BS 5329 PART 1: 1987.
3. MINIMUM COVER TO ANY BAR SHALL BE AS STATED, BUT IN NO CASE LESS THAN 65mm.
4. FOUNDATION HAS BEEN DESIGNED FOR A WORST CASE SCENARIO OF "POOR" SOIL CONDITIONS AS DEFINED IN SPECIFICATION PRE-CAST/2004 - GUIDANCE ON THE USE OF BS EN 10331 AND BS EN 10332. "POOR SOIL" IS DEFINED AS "SOFT CLAY, CLAY LOAM, POORLY COMPACTED SAND, CLAYS NORMALLY MET AND HAVE BEEN DEPOSITED BY FLOODING AND VEGETABLE MATTER AND MADE UP GROUND. THEY ARE NOT SUITABLE FOR BETTER SOIL CONDITIONS.
5. DESIGN ENGINEER TO BE CONSULTED PRIOR TO POURING OF CONCRETE WHERE GROUND IS FOUND TO BE SOFT, MOIST, LOOSE OR VARIES SIGNIFICANTLY ACROSS FORMATION. ALSO IN AREAS OF SEVERE CONTAMINATION, OR WHERE HIGH SULPHATE LEVELS ARE FOUND TO BE PRESENT.
6. CONTRACTOR SHALL SITE CHECK ALL RELEVANT DIMENSIONS AND LEVELS PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE ACCURACY OF ALL WORK AND THE CORRECT SETTING OUT ON SITE.

REINFORCEMENT NOTES

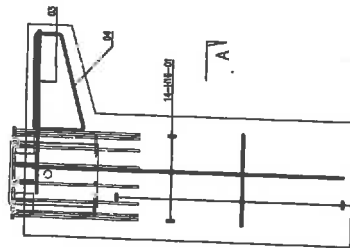
1. THIS DRAWING IS TO READ IN CONJUNCTION WITH RELEVANT FOUNDATION DRAWING.
2. BARS LISTED ON BEADING SCHEDULE.
3. REINFORCING BARS TO BE GRADE B500A, B500B, OR B500C, DEFORMED IN ACCORDANCE WITH BS5666:2005 (F_y=500N/mm²).
4. MINIMUM COVER TO ANY BAR SHALL BE -
 65mm TO TOP OF FOUNDATION
 65mm TO SIDES OF FOUNDATION
 75mm TO UNDERSIDE OF FOUNDATION



SECTION A-A

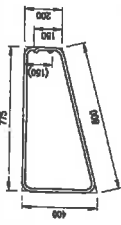


PLAN VIEW



ELEVATION

MEMBER	BAR MARK	TYPE AND SIZE	No. OF MEMBERS	No. IN EACH	TOTAL No.	LENGTH OF EACH BAR mm	SHAPE CODE	A mm	B mm	C mm	D mm
FOUNDATION	01	H16	1	14	14	2450	00	2450			
	02	H8	1	7	7	2350	75	720			
	03	H16	1	2	2	1350	00	1350			
FOUNDATION	04	H16	1	3	3	2150	99				



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NOTES:

1. ALL DIMENSIONS ARE UNLESS OTHERWISE STATED.
2. ALL DIMENSIONS ARE UNLESS OTHERWISE STATED.
3. FOUNDATION IS TO BE CONSTRUCTED IN ACCORDANCE WITH BS 5329 PART 1: 1987 AND BS 5329 PART 2: 1987.
4. ALL DIMENSIONS ARE UNLESS OTHERWISE STATED.
5. ALL DIMENSIONS ARE UNLESS OTHERWISE STATED.
6. ALL DIMENSIONS ARE UNLESS OTHERWISE STATED.

REV	DESCRIPTION	DATE	BY	CHKD
1	FOR CONSTRUCTION	22/05/12		

HUTCHINSON ENGINEERING LTD.

DESIGN: []
 FOUNDATION: []
 STRUCTURE: []
 CONNECTIONS: []

ESTIMATE NO. []
 DRAWING NO. []
 DATE: []

161-441 (0161-442-3000)
 Fax: 441 (0161-442-3000)

CLIENT: EVANX
 PROJECT: SW 10.12 & 15m B&M TILT INSTALLATIONS
 DRAWING TITLE: ROOT CONCRETE DETAILS

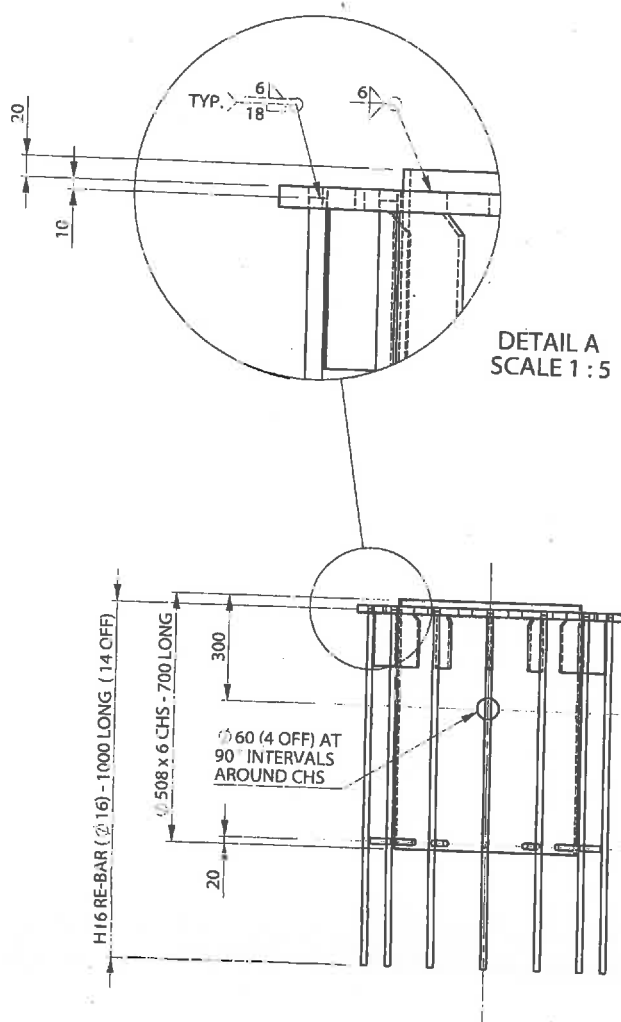
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 CHECKED BY: []
 SCALE: 1:100

IF IN DOUBT ASK

A3

REV

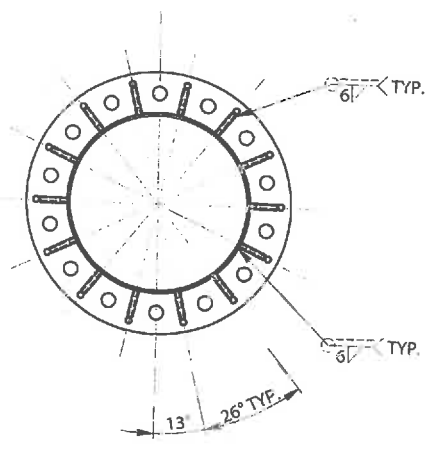
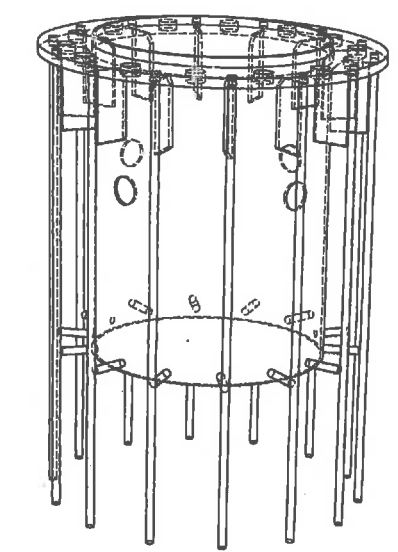
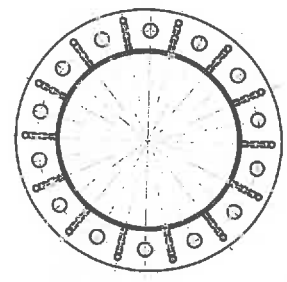
A



ROOT FLANGE
EVNH_5kW_C_501

GUSSET PLATE (14 OFF)
EVNH_5kW_C_502

H16 RE-BAR (Ø16)
- 78MM LONG (14 OFF)

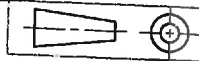


Approved for construction
- 1 JUN 2012
Approved for construction
Approved for construction

NP 12 2 98

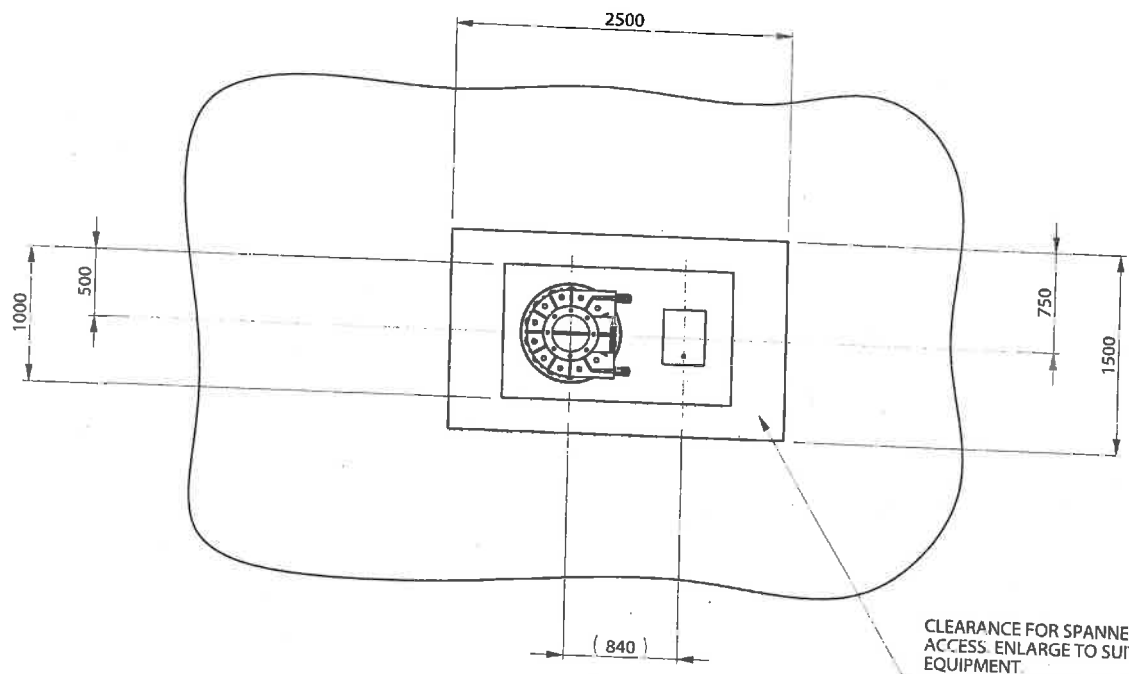
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NOTES:		MATERIAL:		hutchinson engineering		CLIENT: EVANCE	
1. ALL DIMENSIONS ARE IN MILLIMETRES WITH LEVELS SHOWN IN METRES		SEE DETAILS		TEL: +44 (0)151 422 9990		PROJECT: EVANCE 5KW - 10M / 12M / 15M HYDRAULIC STRUCTURE	
2. ALL DIMENSIONS NOT TOLERANCED TO BE WITHIN 30 50mm.		FINISH:		FAX: +44 (0)151 420 5100		TITLE: ROOT ASSEMBLY	
3. STEELWORK TO BE TO BS 7668 OR BS EN 10113-1, GRADE S275 (UNLESS OTHERWISE SPECIFIED) & FABRICATED IN ACCORDANCE WITH BS 5950.		GALVANISED		www.hutchinsonengineering.co.uk		DRAWN: A.P.H. APPD: L.J.B. CHD: L.J.B. SCALE: 1:15 DATE: 22/01/2008	
4. ALL BOLTS TO BE GRADE 8.8 SPLIN GALVANISED TO BS 3692		MASS (Kg.):		EVERITE ROAD, WIDNES, CHESHIRE, WA8 8PT		REVISION	
5. ALL STEELWORK TO BE PICKLED AND HOT DIP GALVANISED IN ACCORDANCE WITH BS EN ISO 1461 (UNLESS OTHERWISE SPECIFIED).		116.69		ISO 9001 Registered		A3	
6. REMOVE ALL BURRS AND SHARP EDGES.						ENVH_5kW_A_501	
FOR MANUFACTURE	A.P.H.	L.J.B.	20/11/2009				
DESCRIPTION	DRAWN	APPD	DATE	A			

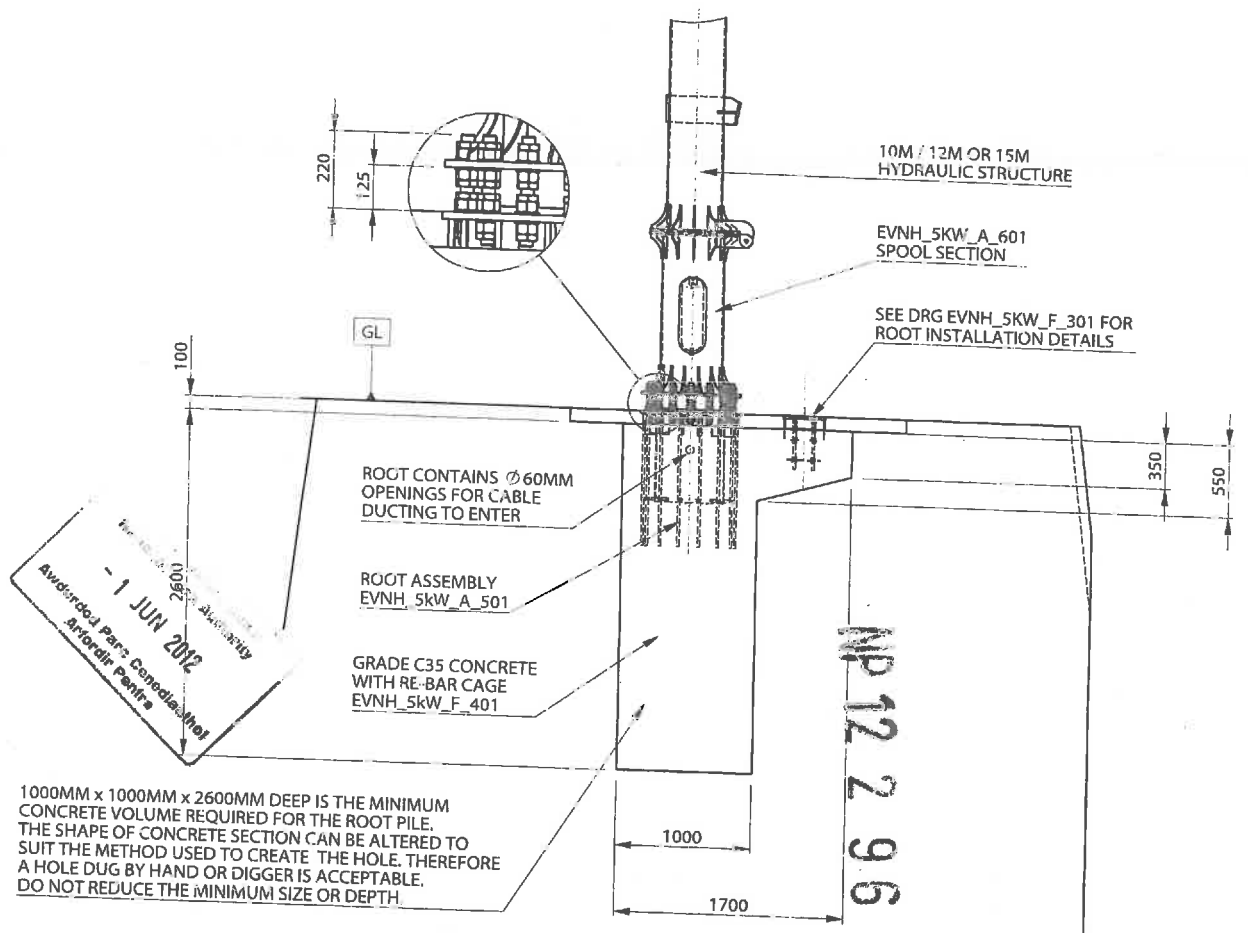


SITE REF. 1

ABC 123



CLEARANCE FOR SPANNER ACCESS. ENLARGE TO SUIT EQUIPMENT. BACKFILL WITH GRAVEL UPON COMPLETION OF GROUND WORKS



1000MM x 1000MM x 2600MM DEEP IS THE MINIMUM CONCRETE VOLUME REQUIRED FOR THE ROOT PILE. THE SHAPE OF CONCRETE SECTION CAN BE ALTERED TO SUIT THE METHOD USED TO CREATE THE HOLE. THEREFORE A HOLE DUG BY HAND OR DIGGER IS ACCEPTABLE. DO NOT REDUCE THE MINIMUM SIZE OR DEPTH.

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IF IN DOUBT ASK

<p>NOTES:</p> <ol style="list-style-type: none"> ALL DIMENSIONS ARE IN MILLIMETRES WITH LEVELS SHOWN IN METRES. ALL DIMENSIONS NOT TOLERANCED TO BE WITHIN ±0.50mm. STEELWORK TO BE TO BS 7668 OR BS EN 10113-1, GRADE S275 (UNLESS OTHERWISE SPECIFIED), & FABRICATED IN ACCORDANCE WITH BS 5950. ALL BOLTS TO BE GRADE 8.8 SPUN GALVANISED TO BS 3692. ALL STEELWORK TO BE PICKLED AND HOT DIP GALVANISED IN ACCORDANCE WITH BS EN ISO 1461 (UNLESS OTHERWISE SPECIFIED). REMOVE ALL BURRS AND SHARP EDGES. 				<p>MATERIAL:</p>		<p>FINISH:</p>		<p>MASS (Kg):</p>		<p>hutchinson engineering</p> <p>TEL +44 (0)151 422 9990 FAX +44 (0)151 420 5100</p> <p>www.hutchinsonengineering.co.uk</p>		<p>CLIENT: EVANCE</p> <p>PROJECT: EVANCE SKW - 10M / 12M / 15M HYDRAULIC STRUCTURE</p> <p>TITLE: FOUNDATION ARRANGEMENT</p>		<p>A3</p>	
<p>FOR MANUFACTURE</p> <p>APM LJB 17/12/2009</p>				<p>DESCRIPTION</p>		<p>DATE</p>		<p>SCALE: 1:40</p>		<p>DATE: 17/12/2009</p>		<p>REVISION</p>			
<p>ISO 9001 Registered</p>								<p>EVERITE ROAD, WIDNES, CHESHIRE, WA8 8PT</p>		<p>EVNH_SKW_F_001</p>		<p>A</p>			